



National Urban Security Technology Laboratory

Strategic Plan

Fiscal Years 2009 - 2013



Homeland
Security

Science and Technology



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**Homeland
Security**

Science and Technology



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I. Introduction

The National Urban Security Technology Laboratory (NUSTL) provides key capabilities as an element of the Science and Technology Directorate of the U.S. Department of Homeland Security. Building on its proud tradition of 60+ years of service to the nation, NUSTL has taken on a new mission of testing, evaluation, and analysis of technologies with a specific focus on first responder, state and local entities.

NUSTL had its beginnings in the Manhattan Project era of the 1940s, and then performed various radiation and nuclear measurement roles during the Cold War period. After being part of the Department of Energy for a number of years, in 2003 the then-Environmental Measurements Laboratory (EML) was transferred to the newly-established Department of Homeland Security (DHS). In 2009, EML's name was changed to NUSTL to more accurately represent its new mission. A Government-owned, Government Operated (GOGO) laboratory, NUSTL is programmatically aligned to the Science and Technology (S&T) Directorate's Test and Evaluation & Standards Division (TSD), with operational funding through the S&T Office of National Laboratories (ONL).

This Strategic Plan for Fiscal Years 2009 – 2013 has been developed to clarify the new mission of the Laboratory, one that is broader in terms of threats, and yet more focused functionally. This plan will help NUSTL capitalize on its major strengths and maximize its contribution to the S&T and DHS missions.



Then... scientists testing Lab prototype technologies for fallout and contamination monitoring at the Nevada Test Site.



Now...scientists testing new applications of technologies with First Responders.

In developing this plan from November 2008-June 2009, two rounds of stakeholder interviews were conducted, to ensure accurate understanding of our customers' most pressing needs, and to explore collaboration possibilities with customers, partners, and S&T senior management. An assessment of strategic issues was performed in two stages based on feedback from internal laboratory staff, the leadership of S&T and other DHS components, New York City and Tri-State area first responder and state and local entities, and other laboratories. These collaborative processes helped ensure the development of a plan that will accelerate the Laboratory's transformation for the 21st Century, as it continues to serve and protect the nation.

II. Mission

The Laboratory's new mission emphasizes its test and evaluation (T&E) function and focuses on the Laboratory's role as a technical liaison between DHS and the first responder community; supporting the convergence of end-user interests and homeland security capabilities.

The Mission of the Laboratory is to:

- **Test, evaluate and analyze Homeland Security capabilities while serving as a technical authority to first responder, state and local entities in protecting our cities**

In fulfilling this mission, the Laboratory serves as a Federal technical authority promoting the successful development and integration of homeland security technologies into operational end-user environments by objectively:

- Conducting test programs, pilots, demonstrations, and other forms of evaluations of homeland security technologies both in the field and in the laboratory.
- Applying knowledge of operational end-user environments and support for operational integration (including training, exercises, equipment, tactics, techniques and procedures) to technology development.
- Enabling first responders and end-users to address operational mission requirements through the coordination of technology development requirements and opportunities.
- Supporting development and use of homeland security equipment and operational standards.

Leveraging its strategic location in New York City, the Laboratory is uniquely positioned to serve Tri-State first responders as well as the homeland security community nationwide. Its broad-ranging relationships with the Tri-State region's homeland security community complement the Laboratory's test and evaluation capability by enabling the use of the New York metropolitan area as an urban test bed. The Laboratory's pilot deployment programs support the transition of homeland security technologies from the developing and testing phases to operational field trials and provide a critical scientific interface with end-users in the field. Additionally, the Laboratory serves as the technical authority to New York area operational-level and responder organizations in the application of homeland security technologies and providing technical reachback capabilities. Through its interface and outreach efforts, the Laboratory promotes the acceptance and integration of homeland security technologies and standards, and accelerates the delivery and successful deployment of enhanced technological capabilities to the end-users.





III. Vision

The Vision recognizes the Laboratory's role as a service provider, supporting the development of homeland security capabilities. As such, the regard in which other homeland security organizations hold the Laboratory is essential to and indicative of its ability to add value.

The Laboratory has defined its vision of ultimate mission success in the following statement:

- **To be an essential partner and trusted technical agent to the Homeland Security Community in securing the nation**



Working in collaboration with National Laboratory scientists and First Responders in preparation for a New York City-based field test of trace explosive detectors.



At the request of the Fire Department of New York, NUSTL scientists testing bunker gear for protection against radiation exposures.



Integrity...Trust...
Pro-Activity...
Flexibility and Adaptability...
Responsiveness...
Mission Orientation...
Teamwork



IV. Core Capabilities

During the strategic planning sessions, stakeholders worked with leadership to identify a list of the essential functional capabilities of the Laboratory. Through analysis of interview data, facilitated discussions, and leadership finalization, two capabilities were identified as pre-eminent: *test and evaluation*, and *first responder liaison*. These capabilities and their components listed below informed the creation of the Lab's Mission statement and description.

Test and Evaluation

The Laboratory's staff is expert in test and evaluation methods and protocols. The Laboratory provides test planning, management, analysis, and reporting, as well as operational risk management for critical technology tests. Laboratory personnel are skilled in identifying test needs, establishing test objectives, serving as test directors, scientists and team members, preparing detailed test plans, analyzing test results, preparing test reports, and coordinating test activities. Further, with its expert knowledge of both homeland security field operations and relevant standards, the Laboratory is ideally equipped to conduct evaluations of technologies and equipment for homeland security operations applications.

As a Federal laboratory, the Laboratory provides an unbiased and independent perspective. This, combined with its authoritative technical knowledge and understanding of operational end-user environments, makes the Laboratory a preferred provider in the area of test and evaluation of homeland security systems.

First Responder Liaison

The Laboratory's scientists, engineers and technicians have ongoing, daily professional interactions with homeland security operational personnel at every level in New York City and the surrounding Tri-State area. The Laboratory's marked history of closely supporting the first responder community has allowed it to witness and better understand the operating conditions these professionals face, from technical and resource limitations to organizational and political challenges. This personal and contextual knowledge allows the Laboratory to represent first responder needs to those who have a mission to meet them.

Because most first responder agencies have limited technical capabilities in-house, they must often rely on outside expertise for technical assistance and support regarding homeland security applications. The Laboratory has long acted as a technical resource and advisor for these agencies. First responders further benefit from this arrangement because the Laboratory's status as a Federal laboratory commits it to providing both impartial and independent advice.

Technology developers, though technically knowledgeable, are not ideally equipped to understand the practical considerations of applying their systems to field operations. To address this gap, the Laboratory is well-situated to fulfill a liaison role between technology developers and end-users, effectively communicating first responder issues and needs to the developers while informing end-users of solutions that are available or are under consideration for development by the technology development community.





Table I. Summary of Core Capabilities

1. Test and evaluation

- a. Lead and provide independent Federal oversight of tests, evaluations and assessments of technologies, systems and their use, including issues relating to:
 - i. Sampling
 - ii. Measurements and detection
 - iii. Data collection and analysis
 - iv. Information reporting
 - v. Validation and verification
 - vi. Quality assurance
 - vii. Reliability, maintainability, availability (RMA)
 - viii. Life cycle costs
 - ix. Concept of Operations (ConOps), response protocols, standard operating procedures (SOP)
 - x. Ease of use and suitability
- b. Plan and execute pilot and demonstration programs.

2. First responder liaison

- a. Facilitate communication and collaboration with New York City metropolitan area first responders, other homeland security operators, and technology providers (e.g., national labs, commercial vendors, etc.).
- b. Serve as technical authority for first responders and the homeland security community by supporting the planning, development, and execution of:
 - i. Training
 - ii. Exercises
 - iii. Equipment
 - iv. Tactics, techniques and procedures
- c. Provide technical reachback capabilities (e.g., support to state and local authorities for radiological and nuclear alarm adjudication).
- d. Represent state and local system requirements to the S&T First Responder Integrated Product Team (IPT).
- e. Support integration of threat detection systems (e.g., BioWatch; Securing the Cities; Command, Control and Interoperability) to first responder operational environments.



V. Organizational Values

As an organization and as individuals, as a matter of good business practice and of principled conduct, the Laboratory's workforce will seek to demonstrate the following core values in all professional activities:

- **Integrity:** Conducting oneself in the highest ethical manner; keeping the best interests of customers, partners, team and staff paramount; representing the truth.
- **Trust:** Promoting open communications; acting with all justifiable faith in others' words and motives.
- **Pro-Activity:** Taking the initiative in furthering customer service and organizational success; creating new value for customers and partners; exhibiting excitement to take action.
- **Flexibility and Adaptability:** Working in a variety of contexts and environments in support of our customers and the Department.
- **Responsiveness:** Identifying and satisfying customer needs in a timely manner; Identifying colleagues' needs and providing them the information, assistance, tools and resources to succeed.
- **Mission Orientation:** Holding ultimate organizational success as the paramount business consideration.
- **Teamwork:** Putting the whole of the organization ahead of oneself; sharing common vision and objectives; collaborating through shared knowledge, skills, success, and lessons learned; resolving conflicts professionally.



Working with the New York City Police Department officers after transitioning an advanced technology to daily operational use.



Installing and testing a networked sensor on a New York City building that will provide real-time data to emergency responders.



VI. Goals and Objectives

Goal 1: Expand and strengthen customer and partner relationships within the homeland security community

The Laboratory seeks to strengthen its existing homeland security connections and to create new relationships for the purpose of further advancing homeland security. The Laboratory specifies S&T Divisions, state and local agencies, as well as national and Federal laboratories for ongoing and future collaborations.

Objective 1.1: Develop a collaborative agenda with S&T Divisions in order to become involved in more programs

- The Laboratory will increase coordination and collaboration with the Testing and Evaluation/Standards Division. Additionally, it will engage other S&T Divisions to develop a comprehensive understanding of their needs and to determine the best means to support the success of their missions. Included in outreach plans are steps to participate in related IPTs.

Objective 1.2: Continue to foster relationships with state and local agencies and leverage established ties to expand partner base

- The Laboratory will host six working groups, attend key conferences, and present at two conferences on an annual basis.

Objective 1.3: Formalize relationships with National and Federal labs

- By the end of 2010, the Laboratory will formalize relationships with Brookhaven National Laboratory and the Remote Sensing Laboratory.

Objective 1.4: Develop and execute a communication plan to increase awareness of and support for the Laboratory's mission among the homeland security community

- The Laboratory will socialize its new direction and capability focus with S&T leadership, customers, partners and funders. It will communicate its Strategic Plan via presentations to the Corporate Board and at an S&T "All Hands" meeting, via individual face-to-face meetings, and through S&T Corporate Communications' established internal and external communication avenues.

Objective 1.5: Collaboratively change the Laboratory's name

- The Laboratory has begun to collaboratively develop a new name with Laboratory staff, ONL, TSD and S&T senior leadership during the planning process. It will take all necessary steps to select and legally adopt a new name.

Goal 2: Consistently deliver superior products and services to our customers

The Laboratory is committed to delivering the highest quality of services to its customers. In support of this effort, the Laboratory will seek accreditation and implement quality reviews, lessons learned, and project management processes for continuous improvement.

Objective 2.1: Obtain laboratory accreditation from a recognized accreditation body

- The Laboratory will work to gain ISO 17025 accreditation. An integral part of this effort will be the documentation of its processes.

Objective 2.2: Design and launch a formal process for the review of the Laboratory's work products

- The Laboratory will develop a template and routing process for review of written work products. When these are complete, they will be introduced to the staff and implemented with the incorporation of staff feedback.

Objective 2.3: Capture and implement lessons learned from customers, partners, and staff to continuously improve Laboratory performance

- The Laboratory will develop a template and process for capturing lessons learned. When these are complete, they will be implemented in each Division within the Laboratory and reviewed after implementation for effectiveness.

Objective 2.4: Implement effective project management practices

- The Laboratory will determine its requirements for project management, investigate project management tools, and develop and implement project plans.

Goal 3: Strengthen the Laboratory's workforce

Preparing the Laboratory's workforce to achieve its new mission is a priority. The Laboratory will take actions to strengthen accountability, skills, and planning for the current and future workforce, including an in-depth workforce analysis.

Objective 3.1: Implement the DHS performance management system for all staff

- The Laboratory will develop a plan for working with the union during contract renewal negotiations to apply the DHS performance management system to union members.

Objective 3.2: Develop and implement a training and development plan to equip the workforce with the appropriate balance of strategic and tactical skills

- The Laboratory will define avenues of skill acquisition and create Individual Development Plans (IDPs).

Objective 3.3: Develop and implement a staffing plan to reflect the strategic mission

- The Laboratory will conduct a workforce analysis, identify needs for recruiting, retention, and succession, and develop strategies and plans to address recruiting, retention, and succession needs.



Goal 4: Modernize and streamline the Laboratory's business support operations to maintain an effective organization

The Laboratory will continue to reach out to the S&T Business Operations Division (BOD) components for support and guidance. Additionally, the Laboratory will conduct trainings for internal staff to maintain the effectiveness of its support and administrative functions.

Objective 4.1: Keep information technology systems current with the state of the art in order to meet Mission requirements

- The Laboratory will establish additional avenues of communication with S&T's Office of the Chief Information Officer (OCIO) in order to facilitate a more dynamic partnership between the two entities. The Laboratory and S&T OCIO will continue IT operational planning, establish an acquisition strategy, and examine existing resources for project management.

Objective 4.2: Ensure coordination among the Laboratory, ONL and the Chief Financial Officer (CFO) to ensure procurement needs are met

- The Laboratory will formalize communication channels with ONL and the CFO to increase communication and facilitate greater coordination.

Objective 4.3: Formalize processes to coordinate with the Human Capital Office (HCO) to ensure human resource needs are met

- Increased interaction with the HCO, including visits, conference calls and trainings are scheduled in order to meet all the human capital needs of the Laboratory and its workforce.

Objective 4.4: Provide a functional, safe, and secure environment for the Laboratory's staff

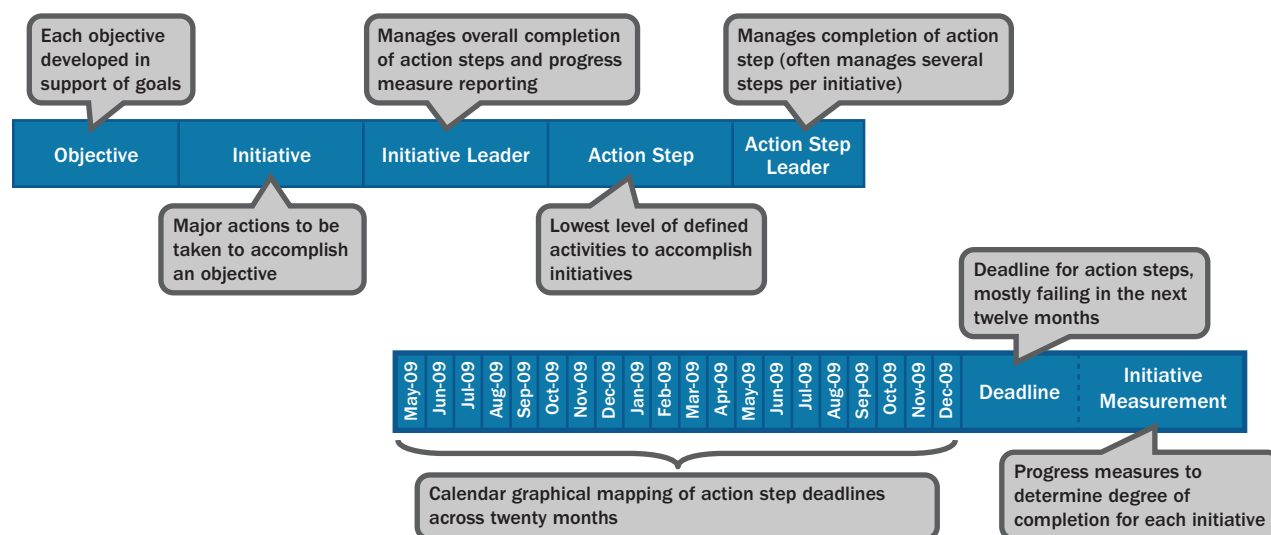
- The Lab will revise its safety and evacuation procedures in its current space and for its new location as well as conduct face-to-face quarterly safety and security trainings to ensure that all staff utilize safety precautions and are prepared for emergencies.



VII. Implementation

To successfully implement the Laboratory's Strategic Plan, key internal and external participants created an Action Plan detailing implementation activities in support of the Objectives over the next year. The Action Plan further defines Objectives by determining concrete, actionable Initiatives and action steps to implement the Strategic Plan. Action planning teams were convened to develop short-term actions to be taken within the year to achieve the Laboratory's Objectives. Leaders were identified, timelines defined, and progress measures created for each Initiative.

The Laboratory's Action Plan Components



For Laboratory Initiatives (discrete, but sustained and concrete efforts defined to accomplish an Objective), percentage completion was the overall measure selected for determining progress. For maximum efficiency and ease of reporting, three different means for obtaining the measurement were defined for different Initiatives:

1. Percentage of targets achieved (e.g., # of working groups held)
2. Percentage of action steps complete
3. Percentage complete as determined by initiative leader

Progress results roll up from level to level, allowing an assessment of the completeness of any portion of the Action Plan, or the entirety of it. Initiative leaders will report the data necessary to produce the progress measures.



VIII. Summary

The Laboratory's Strategic Plan for fiscal years 2009-2013 outlines how the organization will leverage its technical capabilities to become an essential partner and trusted technical agent to the homeland security community in securing the Nation. The Plan defines strategic goals, objectives, and performance measures needed to accomplish this Vision. The Laboratory structures a path forward by focusing on: (1) expanding and strengthening collaborative relationships with customers and partners, (2) continuously improving its products and services, (3) preparing and strengthening its workforce to support the new mission, and (4) modernizing its internal and external business processes. This Plan guides the Laboratory in delivering technical expertise to better enable S&T, DHS and the Homeland Security community to secure our nation.

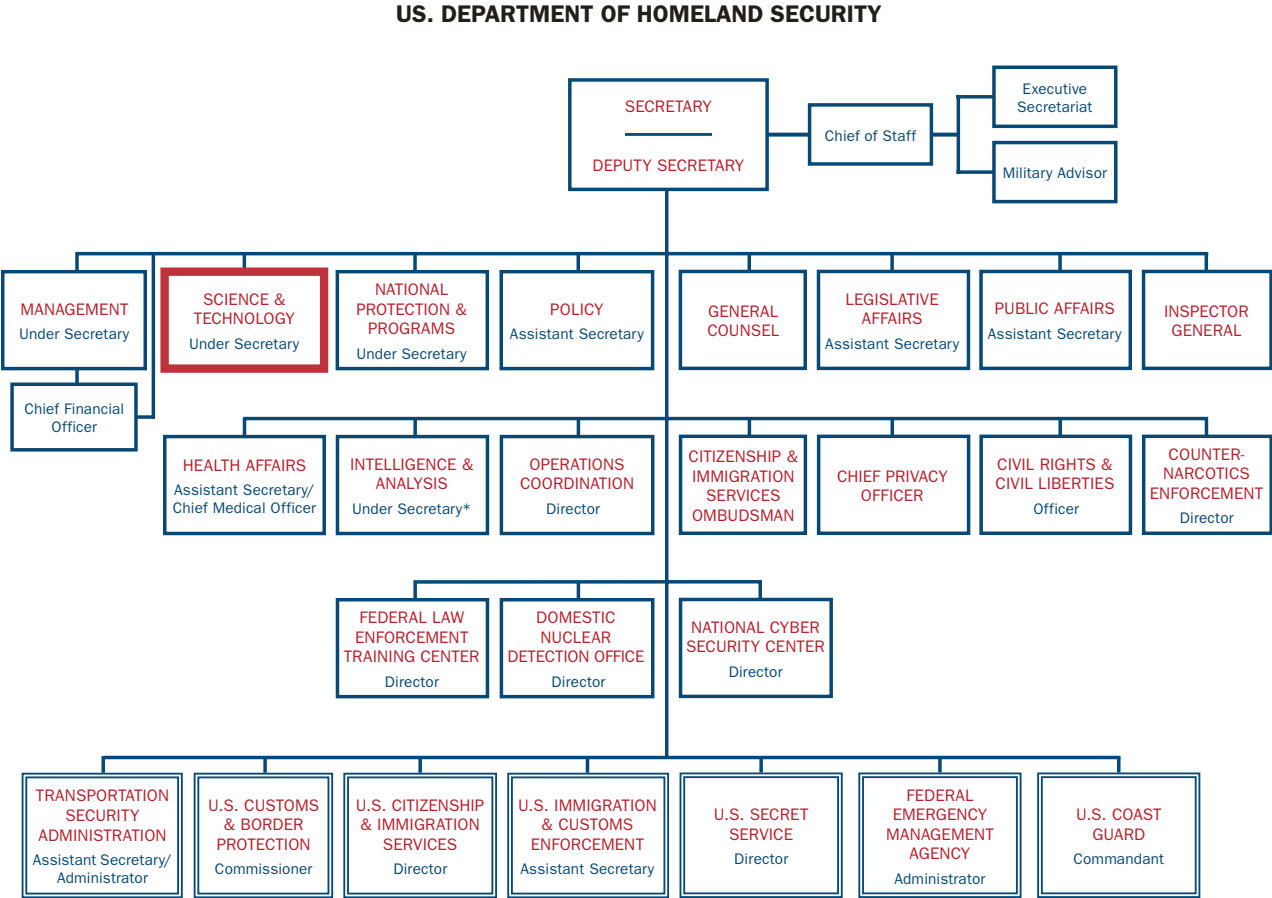
A summary outline of the essential elements of this Strategic Plan is presented on the following page for purpose of easy reference.

NUSTL's Strategic Plan Key Components Summary

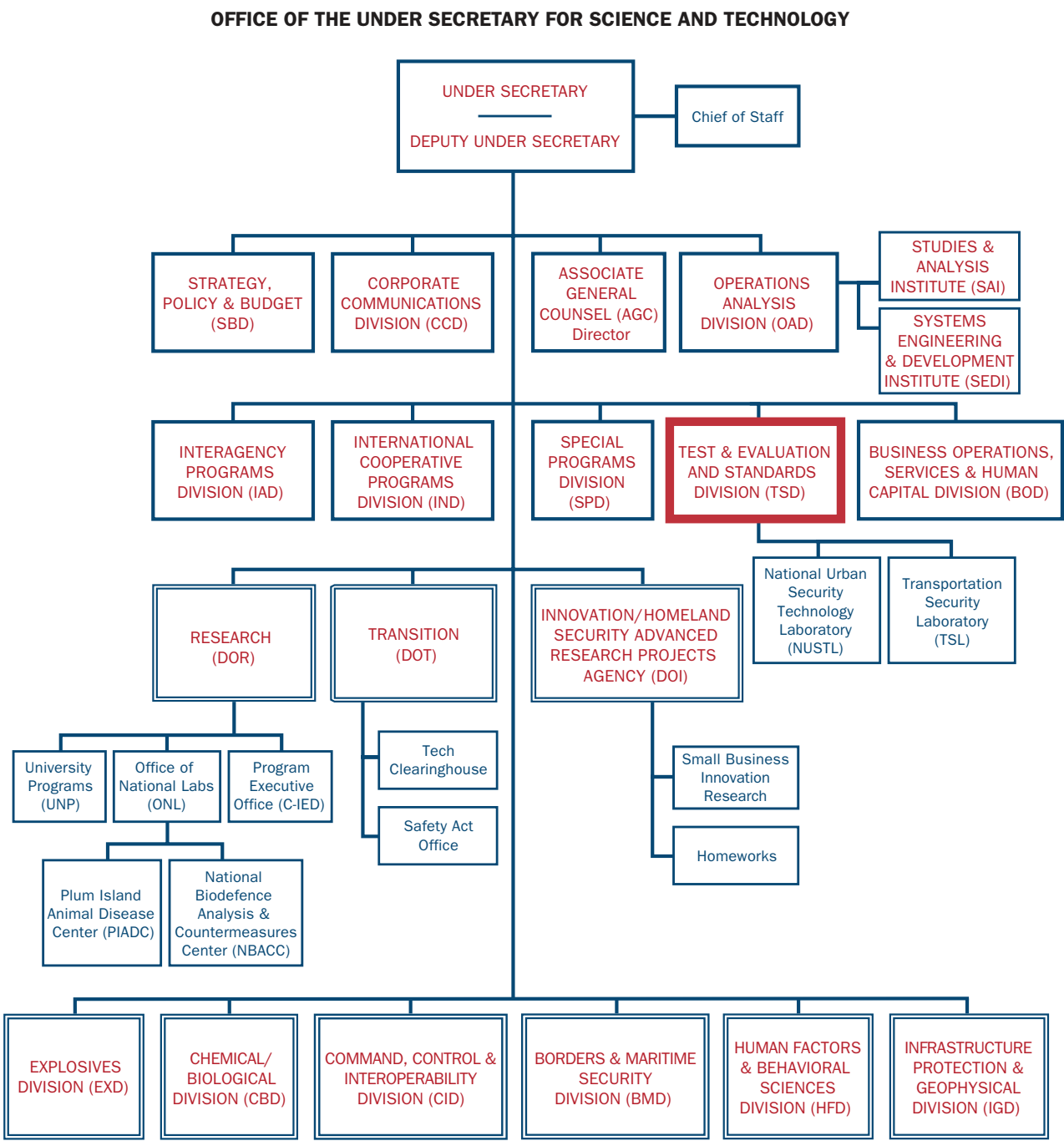
Mission: Test, evaluate and analyze Homeland Security capabilities while serving as a technical authority to first responder, state a local entities in protecting our cities		Vision: To be an essential partner and trusted technical agent to the Homeland Security community in securing the nation		
Customer Perspective		Workforce Perspective	Internal Operations Perspective	
Goals	1. Expand and Strengthen customer and partner relationships within the homeland security community	2. Consistently deliver superior products and services to our customers	3. Strengthen the Laboratory's Workforce	4. Modernize and streamline the laboratory's business to support operations to maintain an effective organization
	1.1 Develop a collaborative agenda with S&T Divisions in order to become involved in more programs	2.1 Obtain laboratory accreditation from a recognized body	3.1 Implement the DHS performance management system for all NUSTL staff	4.1 Keep Information Technology systems current with the state of the art in order to meet Mission requirements
Objectives	1.2 Continue to foster relationships with state and local agencies and leverage established ties to expand partner base	2.2 Design and launch a formal process for peer review of the Laboratory's work products	3.2 Develop and implement a training and development plan to equip the workforce with the appropriate balance of strategic and tactical skills	4.2 Promote coordination among the Lab, Office of National Labs, and the Chief Financial Officer to ensure procurement needs are met
	1.3 Formalize relationships with National and Federal labs	2.3 Capture and implement lessons learned from customers, partners, and staff to continuously improve Laboratory performance	3.3 Develop and implement a staffing plan to reflect strategic mission	4.3 Formalize processes to coordinate with the Human Capital Office to ensure human resource needs are met
	1.4 Develop and execute a communication plan to increase awareness and support for the laboratory's mission among the homeland security community	2.4 Implement effective project management practices		4.4 Provide a functional, safe, and secure environment for the Laboratory's staff
	1.5 Collaboratively change the Laboratory's name			
Core Values: <i>Integrity, Trust, Pro-Activity, Flexibility/Adaptability, Responsiveness, Mission Orientation, Teamwork</i>				



Appendix A – Organizational Charts



The National Urban Security Technology Laboratory is programmatically aligned to the Test & Evaluations and Standards Division of the S&T Directorate.



1. For more information about the National Urban Security Technology Laboratory, we encourage you to contact us or visit our website.

DHS/S&T Spokesman:

John Verrico
Washington, DC
(202) 254-2385
john.verrico@dhs.gov

DHS/S&T/NUSTL Website:

http://www.dhs.gov/files/labs/gc_1223664506703.shtm

